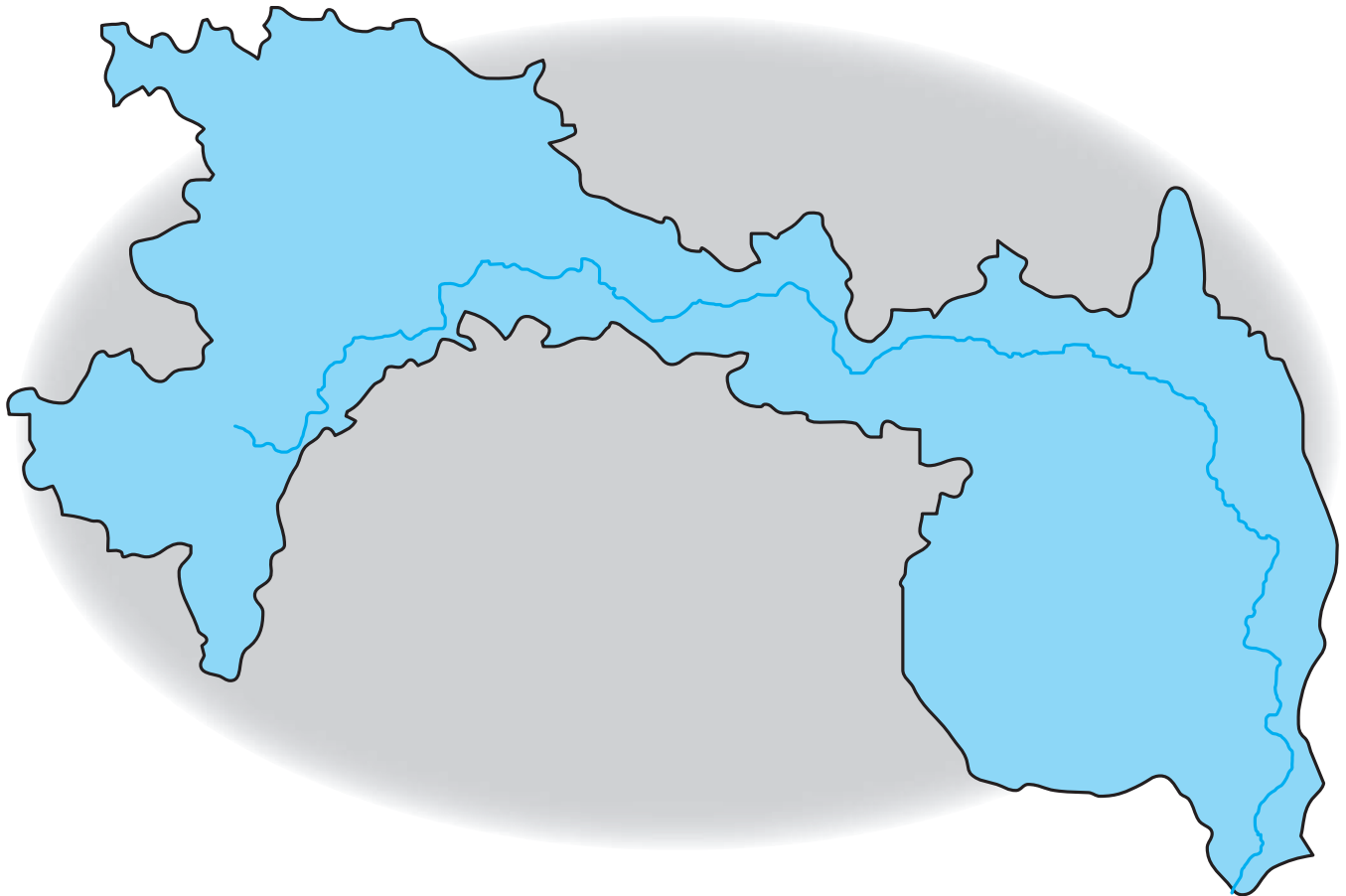


# Upper Sheyenne River Basin Conceptual Water Management Plan



Prepared by the  
Upper Sheyenne River Basin Joint Water Resources Board  
and the  
North Dakota State Water Commission

2005

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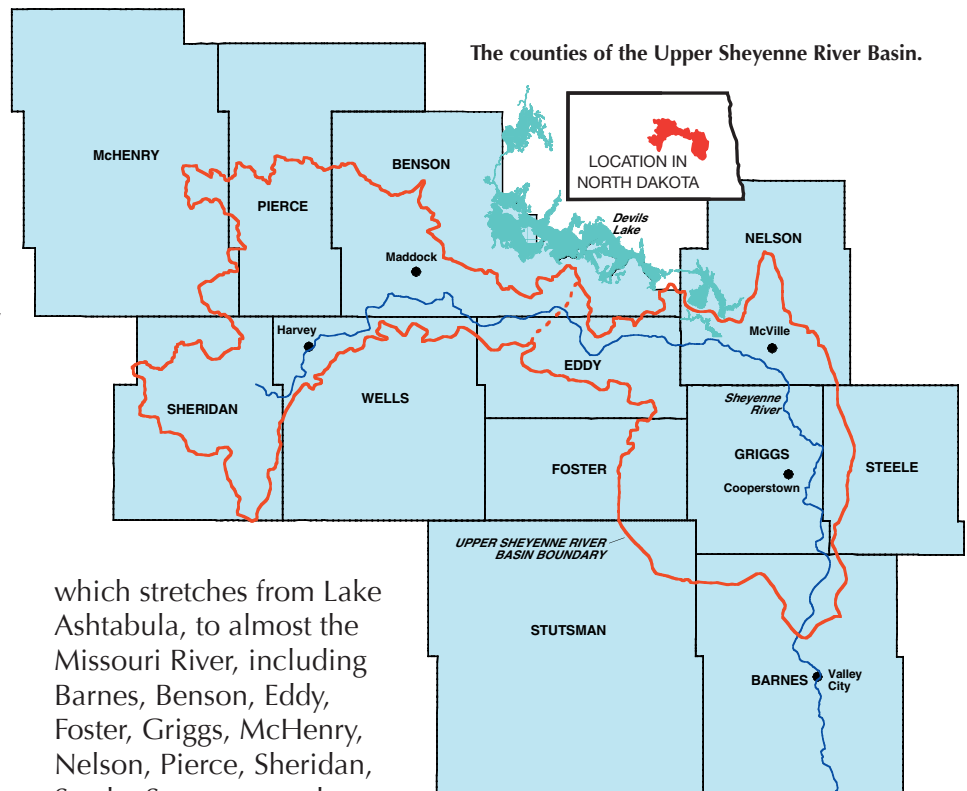
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## Introduction

In the early 1980s, numerous counties in eastern North Dakota began reviewing the conditions in their watersheds, including issues such as the discharge of water across county lines. Several of these counties became involved with other joint water boards throughout North Dakota, and observed how valuable a tool in water resource management that these organizations were. Barnes, Griggs, Nelson, and Steele Counties began reviewing water resource issues such as the Baldhill Dam raise, and the condition of the Upper Sheyenne River in 1984. This review led to the creation of the Upper Sheyenne River Joint Board. Over the next decade, several meetings took place, leading to decisions and participation in efforts in a cutting edge irrigation study, and possible water retention sites.

Additional water boards became involved with the Baldhill Dam raise in the early 1990s. In that same time period, consideration was repeatedly given to expansion of the Upper Sheyenne Joint Board.

In 2004, the counties of the Upper Sheyenne River Joint Board began the process of expanding the membership of the board, with the goal of including all of the 12 counties in the Upper Sheyenne River Basin,



which stretches from Lake Ashtabula, to almost the Missouri River, including Barnes, Benson, Eddy, Foster, Griggs, McHenry, Nelson, Pierce, Sheridan, Steele, Stutsman, and Wells Counties. These efforts have led ten of the 12 counties to join the board.

In early 2005, the Upper Sheyenne River Basin Joint Water Resources Board (Joint Board) began the process of

developing a conceptual water management plan, with the goal of developing a cohesive and forward-thinking vision of water management in the Upper Sheyenne River Basin.

## Mission Statement

It is the goal of the Joint Board to develop and implement a comprehensive, coordinated conceptual water management plan for the Upper Sheyenne River Basin that will protect the economic and other important values of the Basin while providing optimum benefits for agriculture, wildlife and fisheries, outdoor recreation, economic development, and its citizens. This effort will be accomplished through the encouragement of cooperation and coordination of water resources efforts with water resource districts and local, state, and federal entities.

## Purpose of the Plan

The purpose of this document is to define water management issues, to begin the process of organizing and prioritizing project needs, to state objectives, and to provide strategies designed to manage the Upper Sheyenne River Basin in a manner that best meets the needs of all interested parties. Once the Joint Board has reviewed and approved the updated Basin management plan, drawing upon the expertise of Technical Support Representatives and the public, the process of implementation of strategies can begin.

Perhaps the most important aspect of this plan is ensuring that all relevant agencies—state, federal, and private organizations—should make a unified effort to achieve the management strategies and objectives of this plan, which will serve



The Upper Sheyenne River basin near Harvey.

as a constant reminder of what actions need to be completed in the Basin.

This plan is a working plan, and in that sense will never be completely finished, and will need periodic updates. It uses a loose-leaf format to outline components of the plan so the results

of future work can be added with little effort. Any changes in objectives or strategies must be approved by the Joint Board with consultation drawing upon the input of Technical Support Representatives and the public, and will be reflected in future plan revisions.

## Future Updates

The 2005 Upper Sheyenne River Basin Conceptual Water Management Plan (Water Plan) represents the conditions of the Sheyenne River Basin at this time. The purpose of the Water Plan is to provide a convenient and accessible document that will provide the citizens of the Sheyenne River Basin and state, federal, and private agencies with a road map of what has been done, what is being done, and what remains to be done.

While this plan intends to give a long-term vision of water management in the Basin, it is the nature of water management issues to change. It is important

to continue to make progress towards the Basin's long-term water management goals, while still retaining the flexibility necessary to change this plan to best meet short-term needs.

As a result, the Water Plan will be reviewed every three years, or less if necessary, by the Joint Board, with the assistance of Technical Support Groups and the public.

Maintaining the Water Plan provides long-term guidance, but it is also a document that must be kept current in the overall effort to resolve many of the Upper Sheyenne River Basin's water management problems.

The success of this plan is dependent upon all interests continually working together for the betterment of each of our citizens.

Further, while a conceptual water management plan can be a powerful tool for change, the Joint Board recognizes the need for future updates of the plan to contain specific actions for the board to pursue, and an eventual prioritization process to allow for a fair and effective means of focusing money and efforts in the most efficient means possible.



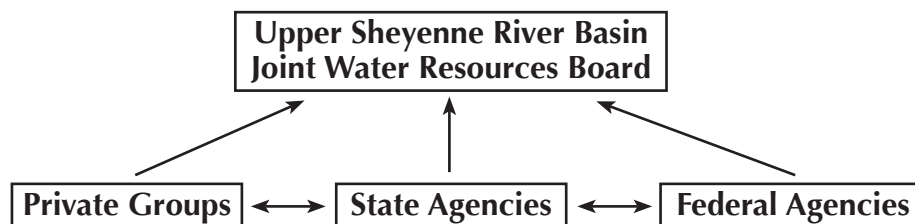
A meeting of the USBJWRB in Medora, in 2004.

## Upper Sheyenne River Basin Joint Water Resources Board

The Joint Board is comprised of one representative, selected by each member county from each of the nine water resource districts. In January of each year, the Board reorganizes, electing a Chairman and Vice Chairman from the county representatives.

The Upper Sheyenne River Basin Joint Water Resource Board's mandate is:

*"To bring the watershed above Baldhill Dam (Lake Ashtabula) into a partnership in order to review issues and create solutions through local, county, state, and federal cooperation."*



### USBJWRB Directors (As of 2005)

BARNES COUNTY .....	Pat Hurley
BENSON COUNTY .....	Brian Maddock
EDDY COUNTY .....	Neal Rud
FOSTER COUNTY .....	Les Greger
GRIGGS COUNTY .....	Normal Dahl
NELSON COUNTY .....	Ben Varnson
PIERCE COUNTY .....	Marvin Gisi (beginning in 2006)
STEELE COUNTY .....	Wade Ihry
STUTSMAN COUNTY .....	Joel Lees
WELLS COUNTY .....	Norm Remboldt



## Subject Committees

A guiding principle behind the development of the Water Plan is local direction and involvement. For the 2005 Water Plan, the county representatives on the Joint Board will serve as the representatives for the Subject Committees.

## Technical Support Agencies

The Technical Support Agencies were invited to participate in the planning process, because the Joint Board felt that these particular groups had the technical expertise necessary. Each of the agencies appointed representatives to work closely with the Subject Committees. The Technical Support Agency Representatives acted in only an advisory role, and as such, had no voting rights, being present primarily as a resource and a sounding board for ideas developed by the Subject Committees.

### Technical Support Agency Representatives

Arrowwood National Wildlife Refuge  
Garrison Diversion Conservancy District  
Natural Resource Conservation Service  
North Dakota Association of Counties  
North Dakota Department of Health  
North Dakota Forest Service  
North Dakota Game & Fish Department  
North Dakota Natural Resources Trust  
North Dakota State University Extension Service  
North Dakota State Water Commission  
Red River Riparian Project  
Section 319 Project  
Sheyenne River Valley National Scenic Byway  
Sheyenne Riverways  
United States Army, Corps of Engineers  
United States Fish & Wildlife Service  
United States Geological Survey

Stacy Whipp and Mike Erickson  
Dave Johnson  
Andy Wingenbach  
Wade Williams  
Mike Ell  
Craig Brumbaugh  
Lynn Schlueter  
Sharon Clancy  
Michael Noone and Randy Gjestvang  
Tom Scherer  
Dave Rush  
Keith Monson  
Becky Heise  
Milt Sauer  
Rick Schueneman and Tom Sully  
Paul Halko and Roger Hollevoet  
Steve Robinson

## Basin Activities of Technical Support Agency Representatives

### North Dakota State Water Commission

The North Dakota State Water Commission, whose primary goal is comprehensive water management in North Dakota, is involved in numerous activities in the Upper Sheyenne River Basin. Long-term activities include assistance in snagging and clearing of waterways, monitoring and work on maintaining a network of dams in the basin, water use permitting, groundwater studies, and numerous other areas. In recent years, with the construction of the Devils Lake outlet, the State Water Commission has added biological monitoring on the Sheyenne River, and additional collections of water quality data to its list of responsibilities.

# Subject Committee Recommendations: Agriculture

## Objectives:

1. Ensure that the rights of property owners are protected.
2. Increase both the economic and environmental benefits of agriculture through the implementation of better land and water management practices.
3. Provide flood protection for private and public lands to protect against specific flood events.
4. Cooperate with other entities and direct the development of specific plans and goals, for the Joint Board, in order to promote better conservation management practices.
5. Identify local, state and federal regulations that can help or hinder implementation of the Upper Sheyenne River Basin Conceptual Water Management Plan.
6. Increase farm income through increased commodities production using better water management practices.



Buffalo grazing on the Sheyenne River, near Maddock.

### **Objective 1. Ensure that the rights of property owners are protected.**

#### Goals:

1. Analyze all Joint Board activities, in order to determine if private property owners' rights are being protected.
2. Balance the needs of agriculture with other uses in respect to township and/or county zoning regulations.

### **Objective 2. Increase both the economic and environmental benefits of agriculture through the implementation of better land and water management practices.**

#### Goals:

1. Develop mechanisms to address the problem of Basin soils that are considered to be alkali or saline.
2. Continue to encourage the research of techniques used to identify the various water management practices affects on salt movement and accumulation.

3. Investigate possible funding sources for various water management practices through funds available in all available sources.

4. Encourage the use of Best Management Practices in all future water management projects in the Basin.

### **Objective 3. Provide flood protection for private and public lands to protect against a specific flood event.**

#### Goals:

1. Continue to develop management practices for water storage and handling in the Basin to minimize crop losses.

2. Develop procedures that address those issues that arise from the use of private and public lands to alleviate flooding.

3. Develop a generic channel maintenance program with adequate funding, using NDCC 61-16.1-09.1 authorization.

4. Encourage advisory groups to assist in the development of plans to manage rain events of various sizes in order to minimize local losses and to help manage water flows for the benefit of downstream entities.

**Objective 4. Cooperate with other entities and direct the development of specific plans and goals, for the USRBJWRB, in order to promote better conservation management practices.**

Goals:

1. Continue to encourage the implementation of conservation practices, funded through various agency programs.

**Objective 5. Identify local, state and federal regulations that can help or hinder implementation of the Upper Sheyenne River Basin Water Management Plan.**

Goals:

1. Encourage the development of mechanisms whereby payment-in-lieu-of-taxes that are made on land in the Basin, are equal to the full amount of property taxes that were paid prior to a public or non-profit entity gaining ownership of that land.

2. Conduct research on the purchase of private lands by sovereign nations, in order to ensure that the amount paid to local taxing authorities remains the same.

3. Provide education on the value of wetlands to Basin residents including current regulations and/or voluntary wetland agreements.

4. Ensure that the local community has input into any future wetland regulations that would impact the Basin.

5. Balance the needs of agricultural producers with the goals of regulatory agencies for the protection of wildlife and fisheries.

6. Investigate the development of a Basin-wide “wetlands bank” for use in mitigating acres of wetlands being altered by either private or public entities.

**Objective 6. Increase farm profits through increased commodities production using better water and land management practices and bio-fuel development.**



# Subject Committee Recommendations: Economic Development

## Objectives:

1. Capitalize on the economic resources that are available in the Upper Sheyenne River Basin.
2. Create a Basin-wide economic development effort utilizing existing Basin economic development organizations.

### Objective 1. Capitalize on the economic resources of the Upper Sheyenne River Basin.

#### Goals:

1. Increase economic development opportunities through improved water and land management (including fee and public access hunting), utilizing local lodging and restaurant taxes where possible and continue to promote educational programs on available economic opportunities.
2. Continue to support the irrigation potential in the Basin by providing assistance to participating producers in order to make the program economically enticing.
3. Encourage the development of non-traditional income producers, such as canoeing, bed & breakfasts, bird watching, rural vacation packages, and scenic byways.
4. Utilize the expertise and information available from NDSU Research and Extension Centers, that serve the Basin, to develop value-added opportunities in agriculture.

5. Ensure that the Basin-wide community's infrastructure capabilities are adequate to support increased economic development activities and ensure a quality of life for current and future residents of the Basin (including, but not limited to: adequate roads, including future maintenance needs; adequate airport, airline and charter services; motel and resort facilities; medical and educational facilities and services; community and rural utilities.)

6. Support the Upper Sheyenne Basin Water Management Plan's Recreation Committee recommendations on increasing tourism-related activities throughout the Basin.

7. Encourage cooperation and communication between Basin economic development groups and resident recreational interests.

### Objective 2. Create a Basin-wide economic development effort utilizing existing Basin economic development organizations.

#### Goals:

1. Promote increased communication and cooperation between Basin economic development groups.
2. Develop a closer working relationship with other jurisdictions throughout the Basin.
3. Hold annual meetings of the representatives of all Basin economic development organizations to set priorities in the implementation of plans and projects. This process should be initiated and coordinated by the Upper Sheyenne River Basin Joint Water Resource Board.
4. Continue to encourage cooperative ventures and projects; including, but not limited to: labor market studies, regional and national trade shows and North Dakota Department of Commerce programs.

# Subject Committee Recommendations: Recreation

## Objectives:

### 1. Develop recreational opportunities in the Upper Sheyenne River Basin.

#### **Objective 1. Develop recreational opportunities in the Upper Sheyenne River Basin.**

##### Goals:

1. Encourage the creation of incentives for opportunities to expand hunting and fishing access in the Basin.
2. Continue efforts to educate the general public about courtesies relating to hunting in the Basin.
3. Promote landowner's perception of wildlife and waterfowl as an "asset" rather than a "liability."
4. Encourage an increase in non-consumptive wildlife recreation in the Basin through the use of promotion, education, increased viewing sites, other marketing efforts and infrastructure investment.
5. Encourage the expansion of agricultural "tourism" with local farmers including crop tours, farm and ranch vacation packages, and suitable marketing materials.
6. Secure support, as appropriate, for expanded recreational opportunities in the Basin by providing economic benefit information to State Legislators, farm organizations, financial institutions and other involved parties.
7. Compile and maintain an inventory of recreational opportunities in the Basin including: golf, community celebrations, bike trails, snowmobile trails, cross country skiing areas, museums, historical sites, bird watching opportunities and other recreational activities.
8. Support work to develop and promote the distribution of a basin-wide recreation information brochure working with all interested parties including: chambers of commerce, tourist and convention bureaus, economic development groups, rural electric cooperatives and others.
9. Use the Internet to promote the Upper Sheyenne River Basin.
10. Support the stocking of area lakes and rivers with desirable species.
11. Increase the promotion of, and access to, hunting and fishing in the Upper Sheyenne River Basin, including shoreline-fishing opportunities.
12. Coordinate the Upper Sheyenne River Basin Recreation plan with the North Dakota State Recreation Plan and other agency plans as it is revised and updated.
13. Coordinate information and studies done by state agencies to determine economic benefits to Basin recreation programs.
14. Encourage state agencies to cooperate with Basin recreation organizations in the promotion of international tourism.
15. Hold annual meetings of the representatives of all Basin recreation promotional organizations to set priorities and discuss plans and projects. These meetings should be initiated and coordinated by the Joint Board.
16. Continue to work with state, federal, and private agencies to increase awareness of, and develop educational materials on the risks of aquatic nuisance species.
17. Help to encourage and promote riparian recreational activities, such as kayaking, canoeing, camping, and wildlife watching.

# Subject Committee Recommendations: Wildlife and Fisheries

## Objectives:

1. Enhance grassland, woodland and wetland acreages and riverine habitat for the betterment of wildlife and fisheries production in the Upper Sheyenne Basin.
2. Manage water quality and quantity for the benefit of Upper Sheyenne River Basin fisheries and wildlife.
3. Encourage continuation and intensification of agricultural conservation practices that are beneficial to agriculture, wildlife and fisheries in the Upper Sheyenne River Basin.
4. Encourage the implementation of programs that encourage increased youth participation in hunting, fishing and outdoor recreation.
5. Encourage improved communication between agricultural and outdoor interest groups.



A great blue heron in an oxbow along the Sheyenne River.

### **Objective 1. Enhance grassland, woodland, and wetland acreages and riverine habitat for the betterment of wildlife and fisheries production in the Upper Sheyenne Basin.**

#### Goals:

1. Estimate, on a regular basis, the acreage of quality habitat available.
2. Continue to explore and develop methods that will enhance

the quality of existing habitat (i.e., PLOTS program and Water-Bank).

3. Encourage respect for private and public property rights.
4. Ensure public input on issues regarding wetland retention.
5. Encourage the funding of existing voluntary programs designed to create new incentives to improve the quality and diversity of habitat on private lands.

6. Encourage the maintenance of existing programs designed to monitor and test established enhancement methods.

7. Encourage the management of federal, state, non-profit and private lands to improve production of wildlife and fisheries.

8. Encourage the continued stocking of fish in viable lakes within the Upper Sheyenne River Basin through the North Dakota Game and Fish Department.

**Objective 2. Manage water quality and quantity for the benefit of Upper Sheyenne River Basin fisheries and wildlife.**

Goals:

1. Promote, support, and utilize a Basin-wide water quality monitoring program in cooperation with the United States Geological Survey, the North Dakota Department of Health, and other relevant entities.
2. Identify land management practices that both improve and degrade water quality and quantity.
3. Continue to develop and implement programs that inform the community of the importance of water quality initiatives and continue developing strategies to implement water quality practices.
4. Work with state, federal, and private agencies to increase awareness of, and prevent the introduction of ANS into the waters of the Upper Sheyenne River Basin.

**Objective 3. Encourage continuation and intensification of agricultural conservation practices that are beneficial to agriculture, wildlife and fisheries in the Upper Sheyenne River Basin.**

Goals:

1. Continue to support the expansion of implementation of high residue tillage, nutrient management, erosion control, livestock waste management, and other sound agricultural management practices.
2. Identify funding sources, that provide greater incentives for conservation practices.

**Objective 4. Encourage the implementation of programs that encourage increased youth participation in hunting, fishing and outdoor recreation.**

Goals:

1. Encourage programs designed to increase interest in hunting, fishing and outdoor recreation.
2. Encourage the maintenance of youth educational and safety programs.
3. Encourage the enhancement, creation, and expansion of programs that are intended to facilitate youth hunting, fishing, and non-consumptive outdoor recreation.

**Objective 5. Encourage improved communication between agricultural and outdoor interest groups.**

Goals:

1. Encourage the establishment of basin-wide, landowner and outdoor interest organizations.
2. Identify reasons for conflict.
3. Support the development and implementation of methods designed to resolve conflicts through increased communication.
4. Support the education of community residents and visitors about the respect and courtesies required for good landowner and outdoor interest organization relations.



# Subject Committee Recommendations: Riparian and Riverine

## Objectives:

1. Encourage and promote better information and a cohesive policy on the issue of dam restoration, removal, or new construction.
2. Work with local, state, and federal entities to enact snag and clear policies and programs that benefit the Basin.
3. Work with landowners, local, state, and federal entities to enact erosion and sedimentation mitigation, control, and prevention policies, and programs that benefit the Basin.
4. Maintain an active and vocal role in developing policies on water quality regulations that will affect the Basin in coming years.
5. Improve both the quality and quantity of habitat, in order to facilitate such diverse uses as agriculture, wildlife and fisheries, and water purity.



A large snag in the Sheyenne River, south of Cooperstown.



## Contact Information

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